

CLAIMS

1. A method for allocating a capacity of a common channel among a
2 plurality of producers, each of the plurality of producers being allocated a first
portion of the capacity of the common channel and a second portion of the
4 capacity of the common channel,

wherein the second portion of the capacity of the common channel
6 allocated to each of the plurality of producers is based at least in part on the
extent to which the corresponding producer is determined to have used the
8 corresponding first portion of the capacity of the common channel.

2. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 1, wherein each of the first and second
portions of the capacity of the common channel is at least a basic rate.

3. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 2, frames of equal duration in time are
divided into a number N of slots of equal duration, each slot of a frame being
4 numbered in order of time from 1 to N, and each of the plurality of producers
being assigned a number from 1 to N,

6 wherein for each number i assigned to one of the plurality of producers,
a moment at which a producer i commences producing has a fixed relation in
8 time to the start of a slot having the number i.

4. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 3, wherein the common channel is the

095466 "09101

reverse link of a code-division multiple access system for wireless

4 communications.

5. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 2, wherein the common channel is the
reverse link of a code-division multiple access system for wireless

4 communications.

6. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 1, wherein for each of the plurality of
producers the corresponding second portion of the capacity of the common
4 channel exceeds a basic rate only if the corresponding producer is determined
to have used all of the corresponding first portion of the capacity of the common
6 channel.

7. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 6, a passing of time being divided into
frames of equal length, each frame being further divided into a number N of
4 slots of equal length being numbered in order of time from 1 to N, and each of
the plurality of producers being assigned a number from 1 to N,

6 wherein for each number i assigned to one of the plurality of producers,
a moment at which a producer i commences producing has a fixed relation in
8 time to the start of a slot having the number i.

8. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 7, wherein the common channel is the

reverse link of a code-division multiple access system for wireless

4 communications.

9. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 8, wherein each of said plurality of
producers uses no more than a subportion of the corresponding second portion
4 of the capacity of the common channel, said subportion not exceeding a
corresponding used portion of the capacity of the common channel multiplied
6 by an allowable rate increase factor, said corresponding used portion of the
capacity of the common channel being a part of the corresponding first portion
8 of the capacity of the common channel used by the corresponding one of said
plurality of producers.

10. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 7, wherein each of said plurality of
producers uses no more than a subportion of the corresponding second portion
4 of the capacity of the common channel, said subportion not exceeding a
corresponding used portion of the capacity of the common channel multiplied
6 by an allowable rate increase factor, said corresponding used portion of the
capacity of the common channel being a part of the corresponding first portion
8 of the capacity of the common channel used by the corresponding one of said
plurality of producers.

11. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 6, wherein the common channel is the

reverse link of a code-division multiple access system for wireless

4 communications.

12. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 1, wherein for each producer that is
determined to have used all of the corresponding first portion of the capacity of
4 the common channel, the corresponding second portion of the capacity of the
common channel is at least a basic rate, and

6 wherein for each producer that is determined to have used a portion less
than all of the corresponding first portion of the capacity of the common
8 channel, the corresponding second portion of the capacity of the common
channel is at least a subbasic rate, the subbasic rate being less than the basic
10 rate.

13. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 12, the subbasic rate being a null rate.

14. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 12, the subbasic rate being a null rate
if the basic rate is greater than the capacity of the common channel divided by
4 the number of the plurality of producers.

15. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 1, the plurality of producers being
divided into a first group and a second group,

4 wherein for each of the plurality of producers in the first group, each of
the first and second portions of the capacity of the common channel is at least a
6 first basic rate, and

 wherein for each of the plurality of producers in the second group, each
8 of the first and second portions of the capacity of the common channel is at
least a second basic rate, the second basic rate being less than the first basic
10 rate.

16. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 15, the second basic rate being a null
rate.

17. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 1, a passing of time being divided into
frames of equal length, each frame being further divided into a number N of
4 slots of equal length being numbered in order of time from 1 to N, and each of
the plurality of producers being assigned a number from 1 to N,

6 wherein for each number i assigned to one of the plurality of producers,
a moment at which a producer i commences producing has a fixed relation in
8 time to the start of a slot having the number i.

18. The method for allocating a capacity of a common channel among a
2 plurality of producers according to claim 1, wherein the common channel is the
reverse link of a multiple access system for wireless communications.

099468209101

19. The method for allocating a capacity of a common channel among a plurality of producers according to claim 18, wherein the common channel is the reverse link of a code-division multiple access system for wireless communications.

20. The method for allocating a capacity of a common channel among a plurality of producers according to claim 1, wherein each of said plurality of producers has an amount of data to be produced and uses no more than a subportion of the corresponding second portion of the capacity of the common channel, said subportion being based on the amount of data to be produced.

21. A method for allocating a capacity of a common channel among a plurality of producers, comprising:
allocating a first portion of the capacity of the common channel to each of the plurality of producers; and
allocating a second portion of the capacity of the common channel to each of the plurality of producers,
wherein the second portion of the capacity of the common channel allocated to each of the plurality of producers is based at least in part on the extent to which a corresponding producer is determined to have used a corresponding first portion of the capacity of the common channel.

22. An apparatus for allocating a capacity of a common channel among a plurality of producers, comprising:
means for allocating a first portion of the capacity of the common channel to each of the plurality of producers; and
means for allocating a second portion of the capacity of the common channel to each of the plurality of producers,
wherein the second portion of the capacity of the common channel allocated to each of the plurality of producers is based at least in part on the extent to which

695463-01401

[illegible]

23. A computer readable medium embodying a method for allocating
2 a capacity of a common channel among a plurality of producers, the method
comprising:
4 allocating a first portion of the capacity of the common channel to each
of the plurality of producers; and
6 allocating a second portion of the capacity of the common channel to
each of the plurality of producers,
8 wherein the second portion of the capacity of the common channel allocated to
each of the plurality of producers is based at least in part on the extent to which
10 a corresponding producer is determined to have used a corresponding first
portion of the capacity of the common channel.